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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,173	10/06/2000	James R. Kittrell	00-625	3692

7590 09/28/2005

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EXAMINER	
TRAN, THAO T	
ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/684,173	KITTRELL, JAMES R.	
	Examiner	Art Unit	
	Thao T. Tran	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2005 and 15 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/24/2005 has been entered.

2. The Amendments filed on 9/15/2005 and 8/24/2005 are acknowledged.

3. Claims 27-28 are currently pending in this application. Claims 27-28 have been amended.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 27-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,596,664. Although

the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the patent is narrower than that of the instant claims, rendering them obvious over each other.

The claims of the patent disclose all of the limitations as recited in the instant claims. Moreover, claim 1 of the patent discloses the catalyst comprising at least one metal in addition to the components as recited in instant claim 27, making claim 1 of the patent narrower in scope than instant claim 27. Therefore, the claims of the patent and instant claims are obvious over each other.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kittrell et al. (US Pat. 6,596,664)

The applied reference has a common Inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the

inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Kittrell '664 discloses a photocatalyst, comprising silicon in about 0.1-70 weight %, titamium dioxide in about 30-90 weight %, tungsten in about 0.1-50 weight %, and platinum and/or palladium in about 0.1-5.0 weight % (see col. 6, ln. 39-47; claims 1, 6-9).

Claim Rejections - 35 USC § 102/§ 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 27-28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kramer et al. (US Pat. 6,086,749).

Kramer teaches a catalyst composite, comprising a combination of silica, titania, tungsten oxide, and platinum (see col. 37, ln. 2-20). Kramer further teaches tungsten oxide (Group VIB metal) to be about 0.5 to about 50% by weight, preferably about 0.5 to about 30% by weight; platinum (Group VIII metal) about 0.1 to about 10% by weight; and that the total metal components would be about 0.1 to about 60% by weight of the total catalyst (see col. 37, ln. 32-51), overlapping the instantly claimed ranges. Thus, the total weight of silica and titania would inherently be about 40 to about 99.9%, overlapping the instantly claimed ranges.

Although Kramer is silent with respect to the weight percent of silica and titania separately, the weight percent of silica and titania each would be inherently overlapping the

instantly claimed ranges, because the silica weight is presently claimed to be about 0.1% to about 70% whereas the titania weight about 30% to about 90%.

Kramer, however, does not specify the individual weight percent of titania or silica. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have determined the weight percent of silica and titania needed to provide the properties desired in the catalyst. Moreover, Applicant has not shown unexpected results obtained by using the particular weight percent components in the catalyst.

It is hereby noted that since the catalyst taught by Kramer comprises all of the components recited in the presently claimed invention, Kramer's catalyst would inherently be photocatalytic and would have been able to perform the same functions as the presently claimed catalyst. Moreover, it has been within the skill in the art that titanium dioxide is photocatalytic. Thus, the presence of titanium dioxide in the catalyst of Kramer would make the catalyst photocatalytic.

Response to Arguments

10. Applicant's arguments filed 8/24/2005 have been fully considered but they are not persuasive.

Applicant contends that the catalyst of Kramer is not a photocatalyst but rather a catalyst, which is used in high temperature hydroprocesssing of hydrocarbon feedstocks to upgrade to a more useful product. Applicant further argues that since the catalyst of Kramer is not a photocatalyst for purifying contaminated gas streams, it would not be obvious to select the composition of the catalyst as claimed in a hydroprocessing method as taught by Kramer.

However, as pointed out in paragraph 9 above, since the catalyst of Kramer comprises all of the components recited in the presently claimed invention, the catalyst of Kramer would inherently be photocatalytic and would have been able to perform all the functions as presently claimed. Moreover, it has been within the skill in the art that titanium dioxide is photocatalytic. Thus, the presence of titanium dioxide in the catalyst of Kramer would make the catalyst photocatalytic.

Furthermore, as shown in Kramer, the catalyst used in hydroprocessing is to remove undesirable components from the hydrocarbon feed streams (see col. 1, ln. 33-34). Thus, the catalyst of Kramer is to purify the contaminated hydrocarbon streams. Applicant is further reminded that intended use would have no significant patentable weight in a product claim.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt
September 26, 2005

Thao Tran

THAO T. TRAN
PATENT EXAMINER